Remarks/Arguments

Information Disclosure Statement

The translation for FR 2 843 239 was submitted on 06-04-2007. The document is listed as "foreign reference" in the PAIR image file wrapper and includes both the French language version followed by the English translation. The office action erroneously lists the French patent number as FR 2 846 239. The correct number is FR 2 843 239.

35 U.S.C. §102

Claims 1, 2 and 5, stand rejected under 35 U.S.C. §102(b) as being anticipated by Fukasawa (U.S. Patent No. 5,966,097).

Claims 1, 6 and 9, stand rejected under 35 U.S.C. §102(b) as being anticipated by Trowbridge (U.S. Patent No. 2,604,593).

Independent claim 1 has been amended to clarify that the radiating element has a planar shape and is substantially vertically arranged with respect to the conductive surface of the earth plane. Support for this amendment is provided at least in figure Fig. 3a, which shows a planar antenna 300 with a planar radiation element 302 vertically arranged on an earth plane 306, as well as in other figures and in the Detailed Description at least on pages 6-7.

It is respectfully asserted that neither Fukasawa nor Trowbridge, alone or in combination, discloses a data transmission system comprising an:

> "antenna provided with at least a monopole radiating element mounted on a conductive earth plane, wherein the radiating element is connected to the conductive surface of the earth plane via a mast located near an edge of said conductive surface and wherein said radiating element has a planar shape and is substantially vertically arranged with respect to the conductive surface of the earth plane,"

as described in currently amended claim 1.

Among the problems addressed by the present invention is that despite the robustness of the modulations that are used for digital terrestrial television, there are considerable reception problems when using a portable antenna. This is because the transmitted signal for digital terrestrial television is digital and, unlike an analogue signal whose degradation is progressive, the digital image passes via a rapid transition from quality reception to complete loss of the image. (Specification, page 1) The present invention is further directed at the problem that it is difficult to reduce the size of antennas and their accessories while still providing satisfactory electromagnetic performance. (Specification, page 3)

To address these problems, the present application discloses a system combining a compact antenna with a digital terrestrial television decoder. In particular, the antenna is provided with at least a monopole radiating element mounted on a conductive earth plane, wherein the radiating element is connected to the conductive surface of the earth plane via a mast located near an edge of said conductive surface and wherein said radiating element has a planar shape and is substantially vertically arranged with respect to the conductive surface of the earth plane.

In contrast, Fukasawa teaches that a "non-driven first linear element is disposed in the vicinity of an inverted-F second linear antenna element. The driven second linear element is disposed over a conductive plate having a flat shape, in such a manner as to be substantially parallel to the inverted-F antenna. The non-driven element has a short-circuited end of the inverted-F antenna, and has substantially the same resonant frequency as that of the inverted-F antenna." (Fukasawa Abstract) Fukasawa further shows an antenna with a plane 1 and linear conductors 2, 3 which are arranged in parallel to plane 1. (Fukasawa, Figure 1)

Fukasawa does not disclose an antenna with a planar radiation element vertically arranged with respect to an earth plane. Thus, Fukasawa fails to disclose a data transmission system comprising an "antenna provided with at least a monopole radiating element mounted on a conductive earth plane, wherein the radiating element is connected to the conductive surface of the earth plane via a mast located near an edge of said conductive

surface and wherein said radiating element has a planar shape and is substantially vertically arranged with respect to the conductive surface of the earth plane," as described in currently amended claim 1.

Trowbridge relates to "portable antennas for television and radio receiving apparatus." (Trowbridge, column 1, lines 1-2) Trowbridge describes an antenna with non-planar arms 17, 18 mounted on pivot elements. (Trowbridge, Figure 1)

Trowbridge, like Fukasawa, fails to disclose an antenna with a planar radiation element vertically arranged with respect to an earth plane. Thus, Trowbridge also fails to disclose a data transmission system comprising an "antenna provided with at least a monopole radiating element mounted on a conductive earth plane, wherein the radiating element is connected to the conductive surface of the earth plane via a mast located near an edge of said conductive surface and wherein said radiating element has a planar shape and is substantially vertically arranged with respect to the conductive surface of the earth plane," as described in currently amended claim 1.

In view of the above remarks, it is respectfully submitted that there is no 35 USC 112 enabling disclosure provided by Fukasawa or Trowbridge which makes the present invention as claimed in currently amended claim 1 unpatentable. Since dependent claims 2-9 are dependent from allowable independent claim 1, it is submitted that they too are allowable for at least the same reasons that independent claim 1 is allowable. Thus, it is further respectfully submitted that this rejection has been satisfied and should be withdrawn.

35 U.S.C. §103

Claims 4 and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable by Fukasawa (U.S. Patent No. 5,966,097).

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable by Fukasawa (U.S. Patent No. 5,966,097), in view of Herting (*Finite ground plane packaging effects on a dual-band PIFA*).

Claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable by Fukasawa (U.S. Patent No. 5,966,097), in view of Scheppman (U.S. Patent No. 3,987,448).

Since dependent claims 3, 4, 7, and 8 are dependent from independent claim 1, which is allowable for the reasons described above, it is submitted that they too are allowable for at least the same reasons that independent claim 1 is allowable.

Furthermore, Herting and Scheppman, like Fukasawa and Trowbridge, do not disclose an antenna with a planar radiation element vertically arranged with respect to an earth plane. Thus, Herting and Scheppman also fail to disclose a data transmission system comprising an "antenna provided with at least a monopole radiating element mounted on a conductive earth plane, wherein the radiating element is connected to the conductive surface of the earth plane via a mast located near an edge of said conductive surface and wherein said radiating element has a planar shape and is substantially vertically arranged with respect to the conductive surface of the earth plane," as described in currently amended claim 1.

In view of the above remarks, it is respectfully submitted that there is no 35 USC 112 enabling disclosure provided by Fukasawa , Herting, or Scheppman, which makes the present invention as claimed in claims 3, 4, 7, or 8 unpatentable. Thus, it is further respectfully submitted that this rejection has been satisfied and should be withdrawn.

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's representative at (609) 734-6804, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

Respectfully submitted,

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